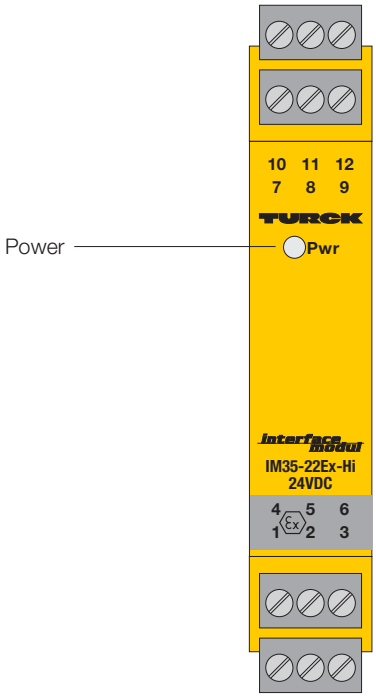


HART®-Analogue Data Transmitter IM35-22Ex-Hi/24VDC 2-channel

- **2-channel HART® analogue data transmitter with removeable terminal blocks**
- **Intrinsically safe output circuits EEx ia**
- **Area of application according to ATEX: II (1) GD**
- **Transmission of current signals 0/4…20 mA**
- **Supply of intelligent actuators with HART® communication**
- **Linearity ≤ 0.1 %**
- **Temperature drift ≤ 0.01 %/K**
- **Galvanic isolation between input circuit, output circuit and supply voltage**
- **Test sockets, Ø 2 mm**

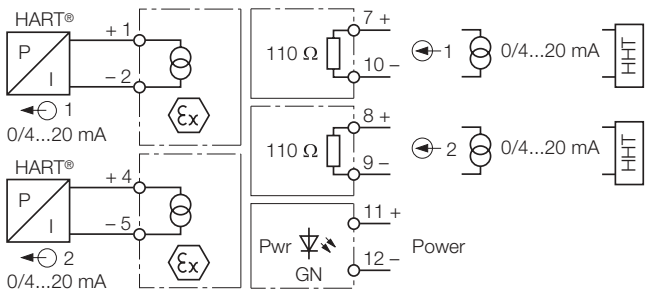
The two-channel data transmitter IM35-22Ex-Hi/... is designed to transfer standard galvanically isolated current signals from the safe area to the explosion hazardous area in a 1:1 transmission mode.

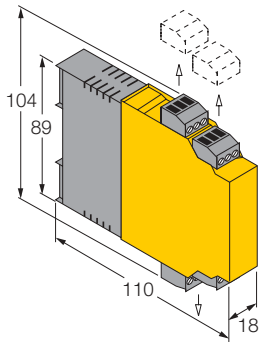
In addition to the analogue signal, digital HART®communication signals can be transferred bidirectionally.

Typical applications are the control of I/P converters (e.g. at control valves/ actuators) or of indicator displays in explosion hazardous areas.

The actuators are connected to the output terminals 1/2 and 4/5. Handheld terminals [HHT] may be connected to the output terminals and input terminals 7/10 and 8/9.

The device is equipped with test sockets (Ø 2 mm) on the removeable terminal blocks for signal control.



HART® Analogue Data Transmitter IM35-22Ex-Hi

Type	IM35-22Ex-Hi/24VDC
Ident.-no.	7506515
Supply voltage U_B	19...29 VDC
Ripple W_{pp}	≤ 10 %
Power consumption	2.2 W
Galvanic isolation	between output and input circuit and supply voltage for 250 V_{rms} test voltage 4 kV_{rms}
Input circuits	
Input current	0...20 mA (up to 24 mA can be transferred at a load of ≤ 430 Ω)
Input resistance	110 Ω
Output circuits	intrinsically safe according to EN 50020
Output current	0/4…20 mA, (up to 24 mA can be transferred at a load of ≤ 430 Ω)
Load	≤ 600 Ω
Ex-approvals acc. to certificate of conformity	TÜV 03 ATEX 2311
Output circuit	
Max. values	
– No-load voltage U_0	15.9 V
– Short-circuit current I_0	60 mA
– Internal resistance R_i	528 Ω
Internal inductances/capacitances L_i/C_i	– / 5 nF
Max. external inductances/capacitances L_0/C_0	
– [EEx ia] IIB	10 mH /860 nF (alt. 0.5 mH/2.2 µF)
– [EEx ia] IIC	5 mH /140 nF (alt. 0.5 mH/330 nF)
– Power/current consumption I_o	470 mW
Marking of the Device	II (1) GD [EEx ia] II C
Transfer characteristics	
Linearity error at limit value	≤ 0.1 % of final value.
Measuring tolerance	≤ 0.2 % of final value.
Long-term error	≤ 0.05 %/year
Effect of load impedance	≤ 0.02 % of final value.
Effect of supply voltage impedance	≤ 0.05 % of final value.
Ambient temperature sensitivity	≤ 0.01 %/K
Rise time (10 %…90 %)	< 90 ms
Release time (90 %…10 %)	< 90 ms
LED indication	
– Power	green
Housing	12-poles, 18 mm wide, Polycarbonate/ABS flammability class V-0 per UL94
Mounting	snap-on hat rail (DIN 50022) or panel screw mounting
Connection	removable terminal blocks, polarity protected screw connection, self-lifting
Connection profile	≤ 1 x 2.5 mm², 2 x 1.5 mm² or 2 x 1.0 mm² with wire sleeves
Degree of protection (IEC 60529/EN 60529)	IP20
Operating temperature	-25…+70 °C